STATEMENT OF WORK

BLDG:55 and 12
TITLE:PROVIDE 480 V. POWER TO SMS, CBD

Provide all labor, materials and equipment to provide 480 volt, 3-phase, 400-amp power from switchgear building 333 to SMS between building 55 and 12. Work location shall be at Naval Research Laboratory, CBD Site, 5813 Bayside Rd., Chesapeake Beach, MD. 20732.

The Scope of Work:

1. Trench from electrical building 333 south toward building 55 and install 4 inch rigid conduit 18 inches below finished grade. Cover conduit with a minimum of 3 inches of concrete. Fill in with removed soil, compact as required; install warning tape one foot above conduit. Plant grass seed and remove excess soil.
2. Remove concrete roadway section for trenching to get conduit to large junction box on berm wall and install 4 inch rigid conduit 24 inches under roadway paralleling the existing 2-1/2 conduits path.
3. Cover conduit with a minimum of 3 inches of concrete. Fill trench with backfill and compact, install warning tape at one foot above conduit for the length of the run. Pour concrete to match existing roadway thickness and cover conduit as it rises up toward junction box with minimum 3 inches of concrete in a neat and workman type manner.
4. Drill hole in south side of building 333 and complete connection to 480 volt switchgear with 4 inch EMT above finished grade. Install caulk between conduit and structure.
5. Install 4 inch EMT conduit on east and south wall of building 55 parallel with existing conduit. Replace existing support channel's with one long enough to support both the existing 2-1/2 and the new 4 inch conduits to provide cosmetic appearance.
6. Move existing 200-amp disconnect between buildings 12 and 55 closer to building 55 to allow for installation of new 400-amp disconnect.
7. Install new 400-amp, 600-volt, 3-phase fused NEMA 3R disconnect on berm wall and connect 4 inch EMT conduit as required.
8. Install (3) three each 500 KCM THHN wires and (1) one #3 THHN ground wire from switchgear to disconnect as required.
9. Label all devices accordingly with black/white laminate 1 inch wide by 3 inches long fastened with rivets.
10. The Contractor or sub-contractor shall be responsible for marking any underground utilities. Any utilities that are disturbed that are shown on utilities map shall be repaired/replaced at Contractor's expense.
11. Attached drawing RDSD #14201 is part of this contract.

The Contractor shall conform to Federal, State and local safety laws, rules and regulations.

REFERENCES:
The latest version of the following industry specifications and standards shall form a part of this contract, to the extent applicable:

- Insulated Cable Engineers Association (ICEA)
- Underwriters Laboratories, Inc. (UL)
- National Fire Protection Association Standards (NFPA)

- American National Standards Institute (ANSI)
- National Electrical Manufacturers Association (NEMA)
- International, national, state, and municipal construction codes as adopted. unless the Contract Documents specify a different code is to be used.
- Illumination Engineering Society of North America (IESNA)
- National Electrical Installation Standards (NEIS)

All Work performed in accordance with the above specifications shall be in strict compliance with OSHA regulation 29 CFR 1926 Subpart N. Particular attention is directed to "Safety Related Work Practices" 1926.416 and "Lockout and Tagging of Circuits," 1926.417. For more information contact the Safety Branch on (202) 767-2232.

Interruption of electrical utilities:
The Contractor shall not interrupt any main interior or exterior electrical utility without written request for an outage and subsequent approval by the contract representative. Work to be performed during an interruption of electrical utilities will be preceded by all possible preparation and will be carefully coordinated to minimize the duration of the interruption and work will proceed continuously until the system is restored to normal.

When reusing soil at the same work site the following steps shall be taken to secure piled soil:

Underlay the soil accumulation area with a continuous impervious sheet of plastic.
Install a berm around the pile so that soil remains in the designated area. The edges of the underlayment must be laid over the top of the berm and secured to prevent water from running under the soil pile.
Install an impervious continuous sheet of plastic over the pile and over the outside of the berm so that rainwater is directed away from the soil inside the berm. Secure the top cover sheet to ensure that wind will not balloon the cover or blow it aside leaving the soil exposed to weather.

Waste Management:
The contractor shall ensure to the maximum extent possible, that any waste generated by this project is reused or recycled. Waste, such as (but not limited to) metals, concrete, gypsum products, paper, cardboard, wood products, brick, plastics, mechanical products and equipment, and electrical products and equipment shall be diverted from landfills and incinerators through reusing or recycling. The Contractor is permitted to retain any funds from the sale of recycled or reused materials. The Contractor shall clean-up, remove and dispose of all concrete and work related debris off NRL property.

The contractor shall submit, within 15 days of completion of this project, all records indicating the disposition of waste generated by this project. Records shall indicate weight, method, and location of the disposition of the waste. The Contractor shall comply with all applicable Federal, State, and local environmental laws and regulations. Final payment will not be made until records have been submitted to and approved by the Government (Code 3546)

Environmental Management System Information:
The Contractor shall be aware that the Naval Research Laboratory has implemented an Environmental Management System (EMS) as directed by Executive Order 13423 *Strengthening Federal Environmental, Energy and Transportation Management*. EMS policy requires a

reduction in hazardous waste disposal through alternate recycling and reclamation efforts. The Contractor shall be aware that the work activities related to this contract can cause real or potential significant environmental impact; thus, the Contractor shall competently perform all duties and responsibilities with a commitment to EMS policy. Pollution Prevention and Right – to - Know Information shall be observed during the duration of this contract.

Execution of Work:
The contract work shall be accomplished during normal working hours. Normal working hours are 0700 hours to 1600 hours, Monday through Friday. The duration of this contract shall not exceed sixty (60) days from the start of work.

Materials, Drawings and Equipment Submittals:
Upon award of the contract, the Contractor shall provide fabrication drawing, manufacturer's materials and equipment specification bulletins and/or cut sheets pertaining to this contract work. The Contracting Officer's Technical Representative shall review the Contractor's materials, fabrication drawing and equipment specification data information for review/approval and/or disapproval.

The Contractor shall visit job site for exact location, dimensions and conditions for new power installation.

Start of Contract:
The Contractor shall notify the Contracting Officer in writing once all equipment, materials and tools are available and ready to be installed in accordance with this contract. The Government and the Contractor shall mutually agree upon a start date and the Contractor shall be given a minimum of seven days notice to begin work.